L 7686-65 EWP(j)/T RM
ACC NR: AP6000908 SOURCE CODE: CZ/0043/65/000/001/0013/0020

AUTHOR: Garaj, J.--Garay, Ya. (Engineer, Candidate of sciences; Bratislava) Gazo, J.--Gazho, Ya. (Doctor-Engineer, Candidate of sciences)(Bratislava)

ORG: Department of Inorganic Chemistry, Slovak Technical University, Bratislava (Katedra anorganickej chemie Slovenskej vysokej skoly technickej)

TITLE: Problem of validity of Peyron's and Jorgen's rule for complex compounds of copper (II)

SOURCE: Chemicke zvesti, no. 1, 1965, 13-20

TOPIC TAGS: thiocyanate, copper compound, isomer, stoichiometry, ammonia

ABSTRACT: Preparation of isomers with a stoichiometric formula $Cu(SCN)_2(NH_3)_2$ as a function of the operating conditions was investigated. They may be produced from solutions where the SCN ligand is substituted by an ammonia molecule, or using a solid state reaction where ammonia ligands are replaced by a sulfocyanate group. From solutions the trans-isomer is formed. Thermal decomposition produces the isomer di-sulfocyanate-Cu(II)-complex beta-$Cu(SCN)_2(NH_3)_2$. There is no complete analogy between Cu++ and Pt++ in the forming of complexes. Orig. art. has: 5 figures, 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 10Jul64 / ORIG REF: 010 / OTH REF: 004 / SOV REF: 002
Card 1/1

0704 2121

L 34674-66 EWP(j) RM

ACC NR: AP6025864 SOURCE CODE: CZ/0043/65/000/008/0593/0603

AUTHOR: Garaj, Jan--Garay, Ya. (Engineer; Candidate of sciences; Bratislava); Gazo, Jan--Gazho, Ya. (Docent, Engineer; Candidate of sciences; Bratislava) 31 B

ORG: Department of Inorganic Chemistry, Slovak Technical University, Bratislava (Katedra anorganickej chemie Slovenskej vysokej skoly technickej)

TITLE: System CuSO sub 4 - (NH sub 4) sub 2 CO sub 3 - NH sub 3 - NH sub 4 SCN - H sub 2 O (I). Substances eliminated from the system as solids

SOURCE: Chemicke zvesti, no. 8, 1965, 593-603

TOPIC TAGS: copper compound, ammonium compound, analytic chemistry

ABSTRACT: Isomolecular solutions with a total concentration of components equal to 0.05M were investigated; conditions of the formation of the complex salt $Cu(SCN)_2(NH_3)_2$ were determined. When the respective amounts of components were changed the following salts were produced: $2CuSO_4.3Cu(OH)_2$; $CuSO_4.3Cu(OH)_2$; $CuCO_3.Cu(OH)_2$; and $Cu(SCN)_2(NH_3)_2$. Two forms of CuSCN were observed. In the presence of ammonium carbonate the colored form is produced; in its absence the white form. Ratio of copper ions to carbonate ions was varied from 1:1 to 1:4; at low ratios cupric thiocyanate with 4 NH_3 is formed; at high ratios $Cu_2(SCN)_3(NH_3)_3$ and $Cu_3(SCN)_4(NH_3)_4$ is formed. The general formula of these complexes is $Cu(SCN)_2(NH_3)_2 . n\ Cu(SCN)(NH_3)$; salts where n = 0, 1, and 2 were prepared. Orig. art. has: 13 figures. [JPRS]

SUB CODE: 07 / SUBM DATE: 10Mar65 / ORIG REF: 006 / OTH REF: 009

Card 1/1 LS

L 32889-66 EWP(j) RM

ACC NR: AP6023836 SOURCE CODE: CZ/0043/65/000/009/0673/0678

AUTHOR: Macaskova, Lubov--Matsashkova, L. (Graduate chemist; Bratislava); Gazo, [redacted]--Gazo, [redacted] (Doctor; Engineer; Candidate of sciences; Bratislava)

ORG: Department of Inorganic Chemistry, Slovak Technical University, Bratislava (Katedra anorganickej chemie Slovenskej vysokej skoly technickej)

TITLE: Complexes of Cu sup II and Co sup II chlorates in acetone solutions

SOURCE: Chemicke zvesti, no. 9, 1965, 673-678

TOPIC TAGS: intermolecular complex, spectrophotometric analysis, absorption band, solution kinetics, chloride, chlorate

ABSTRACT: The study of the complexes was made by spectrophotometrical analysis. The complexes are mixtures of chlorides and chlorates. When $NaClO_3$ is added to a solution of $CuCl_2$ in acetone and the system of complexes $CuCl_2$-$NaClO_3$-$CH_3.CO.CH_3$ is formed, the absorption curve in the visible band does not change; there is only an increase of the intensity of absorption. The chlorate groups may provide the ligands in the complexes and replace acetone in this function; the complexes have several components and are relatively stable. A new absorption band for Co chlorates at a maximum of 592 nm was found. At the same time

Card 1/2

L 32889-66

ACC NR: AP6023836

a change of the absorption band of chlorate-cobalt complexes in acetone at about 662 nm was observed; it consists of the increase in the length of the waves. Orig. art. has: 6 figures. [JPRS]

SUB CODE: 07 / SUBM DATE: 29Mar65 / ORIG REF: 003 / OTH REF: 007

Card 2/2

L 33689-66 EWP(j) RM

ACC NR: AP6024205 SOURCE CODE: CZ/0043/65/000/011/0826/0832

AUTHOR: Gazo, Jan--Gazho, Ya. (Docent; Engineer; Candidate of sciences; Bratislava) 45 B

ORG: Department of Inorganic Chemistry, Slovak Technical University, Bratislava (Katedra anorganickej chemie Slovenskej vysokej skoly technickej)

TITLE: Clarification of oxidation-reduction changes in cupric complexes resulting from interactions of their ligands

SOURCE: Chemicke zvesti, no. 11, 1965, 826-832

TOPIC TAGS: redox reaction, chemical bonding, reaction mechanism, pi bonded organometallic compound, complex molecule

ABSTRACT: The oxidation-reduction changes in cupric complexes may be explained by the interaction of their ligands. The ligands in the trans position have a different tendency to form sigma bonds (with a lowered polarity $Me \rightarrow X$) than dative pi bonds with the central atom. The increased tendency of one ligand to form a dative pi bond with the central atom occurring simultaneously with the tendency of another trans-ligand to form a sigma bond with the central atom can result in the oxidation of the ligand, causing a reduction of the central atom. The sigma bond favors the shifting of bond electrons towards the center atom. Orig. art. has: 3 figures. [JPRS]

SUB CODE: 07 / SUBM DATE: 26Jun65 / ORIG REF: 003 / SOV REF: 004 / OTH REF: 008

Card 1/1 0975 1856

L 41669-66 EWP(j)/EWP(t)/ETI IJP(c)

ACC NR: AP6031199 SOURCE CODE: CZ/0043/66/000/003/0196/0201

AUTHOR: Garaj, Jan—Garay, Ya. (Engineer; Candidate of sciences; Bratislava); 42
Gazo, Jan—Gazho, Ya. (Docent; Engineer; Candidate of sciences; Bratislava) B

ORG: Department of Inorganic Chemistry, SVST, Bratislava (Katedra anorganickej chemie SVST)

TITLE: System CuSo sub 4-NH sub 3-(NH sub 4) sub 2CO sub 3-NH sub 4SCN-H sub 2 0 (II). Study of the solutions from the point of view of physical chemistry

SOURCE: Chemicke zvesti, no. 3, 1966, 196-201

TOPIC TAGS: spectrophotometry, copper compound, thiocyanate

ABSTRACT: The system was investigated by spectrophotometry in the region of visible spectrum. Thiocyanate and carbonate groups in this system show a great tendency to enter the inner sphere of the cupric complexes, where they substitute for ammonia, forming a complex with a mole ratio Cu++: $CO_3^=$ approx. 1:1. It appears that the precipitation of the complex trans-$Cu(SCN)_2(NH_3)_2$ out of these solutions is not connected to the mechanism of substitution reactions but to its low solubility in these media. Orig. art. has: 5 figures. [JPRS: 36,002]

SUB CODE: 07 / SUBM DATE: 01Jul65 / ORIG REF: 003 / SOV REF: 005 / OTH REF: 001

Card 1/1

L 41671-66 EWP(j) RM
ACC NR: AP6031203 SOURCE CODE: CZ/0043/66/000/003/0212/0221

AUTHOR: Gazo, Jan--Gazho, Y. (Doctor; Engineer; Candidate of sciences) 29 B

ORG: Department of Inorganic Chemistry, SVST, Bratislava (Katedra anorganickej chemie SVST)

TITLE: Problem of isomers of complex cupric compounds

SOURCE: Chemicke zvesti, no. 3, 1966, 212-221

TOPIC TAGS: copper compound, complex molecule, isomerization

ABSTRACT: The preparation and properties of isomers of cupric complexes are described and the theory of isomerization of these complexes is discussed. A new isomer of $CuBr_2(NH_3)_2$ is evaluated. Existence of compounds CuX_2A_2 and CuX_4A_2 (where X is Br or Cl, and A is NH_3) is discussed. [JPRS: 36,002]

SUB CODE: 07 / SUBM DATE: 12Oct65 / ORIG REF: 012 / SOV REF: 007
OTH REF: 010

Card 1/1 hs

0911 2636

L 44628-66 EWP(j) RM

ACC NR: AP6033249 SOURCE CODE: CZ/0043/66/000/002/0105/0114

AUTHOR: Kompisova, Zuzana--Kompishova, Z. (Graudate chemist; Bratislava); 29
Gazo, Jan--Gazho, Ya. (Docent; Engineer; Candidate of sciences; Bratislava) B

ORG: Department of Inorganic Chemistry, Slovak Technical University, Bratislava (Katedra anorganicke chemie Slovenskej vysokej skoly technickej)

TITLE: Potentiometric and conductometric investigation of chlorocupric and bromocupric complexes in acetone

SOURCE: Chemicke zvesti, no. 2, 1966, 105-114

TOPIC TAGS: spectrophotometric analysis, organocopper compound, complex molecule

ABSTRACT: The following systems were studied: $CuCl_2.2H_2O$-LiCl-$CH_3.CO.CH_3$; $Cu(NO_3)_2.3H_2O$-LiCl-$CH_3.CO.CH_3$; $Cu(C\,O_4)_2.6H_2O$-LiCl-$CH_3.CO.CH_3$; $Cu(NO_3)_2.3\,H_2O$-LiBr-$CH_3.CO.CH_3$; and $Cu(ClO_4)_2.6H_2O$ -LiBr-$CH_3.CO.CH_3$.

Potentiometric and conductivity measurements were compared to results obtained by spectrophotometry. The complexes are formed with the Cupric ion ratio to that of chlorine or bromine ion being 1:3 or 1:4. The nitrate group enters into the inner part of these complexes. The stability of the complexes depends on the oxidation and reduction reactions taking place. Potentiometric curves are influenced by the presence of nitrate groups.

Orig. art. has: 11 figures. [JPRS: 36,002]

SUB CODE: 07 / SUBM DATE: 24Mar65 / ORIG REF: 007 / SOV REF: 001 / OTH REF: 009

Card 1/1 blg

GAZO, M.

HECKO, I., zapovedny vyskumny pracovnik; SINTAJ, M.; HLAVATY, J.; KUKURA, J.; LIPKOVA, V.; SEVCIKOVA, A.; GRUNT, J.; GAZO, M.; MULLER, M.; VALASEK, V.

Prevention of infections in nurseries. Bratisl. lek. listy 34 no.9: 1021-1045 Sept 54.

1. Z Krajskeho detskeho ustavu narodneho zdravia v Bratislave, riaditel dr. A.Novak (for Hecko, Sintaj, Hlavaty) 2. Z Hygienickeho ustavu LFSU v Bratislave, prednosta akademik V.Much, a z Ustavu hygieny, oblastneho ustavu pre Slovensko v Bratislave, riaditel doc. dr. P.Macuch (for Kukura, Lipkova, Sevcikova, Grunt) 3. Z Ustavu pre vyskum vyzivy ludu v Bratislave, prednosta dr. A.Bucko. (for Gazo, Muller) 4. Z Vyskumneho ustavu epidemiologie a mikrobiologie v Bratislave, riaditel dr. J.Karolcek, z oddelenia pre parazitologiu, prednosta dr. M.Dziuban.
Spolupracovnici: a) z detskej kliniky: M.Krupska a skupina medikov (v ramci studentskej tvorimosti), V.Bohmerova, M.Cernacek, V.Kovac, D.Krivosova, M.Lickova, t.c. uz doktori mediciny. Pred zaciatkom vyskumnej prace riaditel KUNZ dr. A.Novak vykonal instruktaz medikov: b) z Hygienicko-epidemiologicje stanice UNV Bratislava M.Zatkova c) z fasiel 1. na Blahovej ulici c.4.: M.Hlebakova (veduca sestra), J.Benedekova, G.Skotnarova, A.Nozkova, M.Lukovicova, H.Oriskova, V.Feherova; 2. na Feriencikovej ulici c. 6: H.Nemcekova (veduca sestra), M.Slobodova, N.Dobrotkova, A.Macenauerova, B.Stabelova.

(Continued on next card)

HECKO, I., zapovedny vyskumny pracovnik; SINTAJ, M.; HLAVATY, J.; KUKURA, J.; LIPKOVA, V.; SEVCIKOVA, A.; GRUNT, J.; GAZO, M.; MULLER, M.; VALASEK, V.

Prevention of infections in nurseries. Bratisl. lek. listy 34 no.9: 1021-1045 Sept 54 (Card 2)

d)z Hygienickeho ustavu LFSU a z Ustavu hygieny: O.Cikova, K.Rozholdova, L.Haragova, M.Jurcova, T.Orthova; e)z Ostavu pre vyskum vyzivy ludu: M.Popik, A.Kohutova, L.Sintajova, M.Krcnava; P.Ambrova, J.Kollarik, M.Asztalosova.

(COMMUNICABLE DISEASES, in infant and child, prev. in nurseries)
(INFANTS, nurseries, prev. of communicable dis.)

GAZO, MIKULAS

CZECH

Stabilizers of vitamin C. Mikuláš Gazo. *Průmysl Potra-*
vin 6, 92–4(1955).—Review with 28 references. L. J. U.

GAZO, M.

Q-3

CZECHOSLOVAKIA/Farm Animals - Cattle.

Abs Jour : Ref Zhur - Biol., No 1, 1958, 2571

Author : L. Landau, M. Gazo
Inst : -
Title : On the Problem of Calcium and Phosphorus Content in Cows During One Year Depending on Their Nutrition.

Orig Pub : Veterin. cazor. 1956, 5, No 6, 403-422 (Slovak)

Abstract : For the duration of one year, the Ca and P content was observed in the milk and blood serum of two groups of cows (14 cows in each group). Cows which received rich rations produced a milk yield of 12.7 liters on an average a day. The Ca content was 111.2 milligrams/100 milliliters. Cows on restricted rations and a milk yield of 11.5 liters showed a Ca content of 103.9 milliliters/100 milligrams. The respective content of P was: 87.1 milligrams/100 milliliters, and 88.1 milligrams/100 milliliters. The Ca

Card 1/2

CZECHOSLOVAKIA / Chemical Technology. Chemical Products and Their Application. Food Industry. I-30

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 10328

Author : Gazo, M. and Ginter, E.
Title : The Stabilizing Effect of Milk on Vitamin C.

Orig Pub : Prumysl. potravin, 1956, Vol 7, No 6, 269-271

Abstract : The effect of various amounts of milk and whey on the stability of l-ascorbic acid solutions in distilled and in drinking water during the preparation of various foods has been investigated. It has been established that the addition of 10-20% of milk or of whey results in a marked decrease in the loss of ascorbic acid. The vitamin C stabilising effect of milk has been demonstrated in many sauces rich in vitamin C. The author outlines the basic principles of the application of milk as a vitamin C stabiliser in the food processing industry.

Card : 1/1

GAZO, M.

Annual variation of vitamin A and carotene in milkers and its relation to feeding. Cesk. fysiol. 7 no.4:349-350 July 58.

1. SAV---Laboratorium fyziologie hospodarskych zvierat, Ivanka pri Dunaji.

(VITAMIN A, metab.
blood & milk in cows, anmual curves (Cz))
(CAROTENE, metab.
same)
(MILK,
carotene & vitamin A in cows, annual variations (Cz))
(PERIODICITY,
blood & milk vitamin A & carotene in cows, anmual curves (Cz))

GAZO, Mikulas, inz.; VANCIKOVA, Ruzena J., inz.

Experimental biological test of D vitamin content in individual feeds. Vestnik vyzk zemedel 9 no.11:518-519 '62.

1. Vyskumny ustav pre chov hydiny, Ivanka pri Dunaji.

PETER, V., inz., C.Sc.; GAZO, Mikulas, inz., C.Sc.; MARCINKA, K., inz.

Experiment with eggshell quality improvement by enrichment of feeds. Vestnik vyzk zemedel 9 no.11:520 '62.

1. Vyskumny ustav pre chov hydiny, Ivanka pri Dunaji.

GAZO, Mikulas, inz., Sc.C.; KLIMES, Bedrich, MVDr., Sc.C.

Effect of the parasites on vitamin A resorption in poultry. Pt. 1. Vest vyzk zemedel 9 no.12:551-552 '62.

1. Vyskumny ustav pre chov hydiny, Ivanka pri Dunaji.

CZECHOSLOVAKIA

GAZO, M.; SLADKA, M.; LANDAU, L.; Poultry Research Institute, Institute of Experimental Biology, Slovak Academy of Sciences (Vyzkumny Ustav pre Chov Hydiny, Ustav Experimentalnej Biologie SAV), Ivanka pri Dunaji.

"Storage of Vitamin A in Newborn Chickens."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 5, Sep 66, pp 373 - 374

Abstract: The chickens were given a massive dose of vitamin A scaled in a geometric proportion between 500 and 32000 int. units. They were fed for 36 hours ad libitum, then starved for 12 hours, then killed and the content of vitamin A determined. The amount of the vitamin found corresponded to the logarithm of the administered dose. 59% of the vitamin was stored in the liver. 1 Figure, no references. Submitted at 3 Days of Physiology of Domestic Animals at Liblice, 9 Dec 65.

1/1

CZECHOSLOVAKIA

GAZO, M.; SLADKA, O.; KOCI, St.; Poultry Research Institute, Institute of Experimental Biology, Slovak Academy of Sciences (Vyzkumny Ustav pro Chov Hydiny, Ustav Experimentalnej Biologie SAV), Ivanka pri Dunaji.

"The Influence of Varying Levels of Proteins in the Diet on the Exhaustion of Stored Vitamin A."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 5, Sep 66, p 374

Abstract: Experiments were conducted on chickens 1 to 20 days old. The chickens received a massive dose of vitamin A and then were fed for 20 days with the same amount of food, but with varying amounts of proteins. One kind of food contained 26% N substances, the other only 13%. No difference in the amount of vitamin A stored in the body was found between the two groups. No references. Submitted at 3 Days of Physiology of Domestic Animals at Liblice, 9 Dec 65.

1/1

HUNGARY

FIAM, Bela, Dr, physician-lieutenant colonel, cand. of med., technical assistant; OAZSO, Margit; [affiliations not given].

"Experimental Thrombosis: Static Coagulation Studies Using the Serum of Normal Rabbits and Rabbits with 1700 r Whole Body Irradiation."

Budapest, Honvedorvos, Vol XVIII, No 2, Apr-Jun 66, pages 127-131.

Abstract: [Authors' Hungarian summary] By using isolated mesenterial segments of rabbits, the following was demonstrated. 1) Normal contact rabbit serum does not possess any thrombus-inducing, so-called "AP" effect. 2) Contact rabbit serum can be activated with kaolin and the AP formed is capable of static thrombus formation within the recipient animal. 3) In animals subjected to whole body irradiation with 1700 r, the serum retains its caolin activation and thrombus forming ability unchanged, 96 hours after the irradiation; no damage within the AP system is caused by the irradiation. This points to the fact that the contact system does not play any role in the development of the early coagulation disturbance. 7 Hungarian, 2 Western references.

1/1

GAZODOVA, G. YE., ZAL'NOVA, N. S., MASHLOVSKIY, SH. D., FASTOVSKAYA, E. I., CHURKOSOVA, A. A., SERGIYEV, P. G., STAVROVSKAYA, V. I., LYSENKO, A. L., FRAUSE, M. B., GLADKIKH, V. F., ZHUKOVA, T. A.

"Quinocide and the prospects of acceleration of the malaria eradication rate in the USSR."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

GAZOLA, J.

"Construction of a simple device for measuring."

p. 30 (Radioamator) Vol. 6, no. 12, Dec. 1956
Warsaw, Poland

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

GAZOVA, V.

(13)

Prague, Ceskoslovenska Hygiena, Vol VII, No 2/3, April 61
Copyright: State Publishing House of Medical Literature
(Statni zdravotnicke nakladatelstvi), Prague, 1962

1. "Congress of hygienists Concerned With Children and Adolescents in Novy Smokovec, 1961, Inaugural Adress." Docent J. KUKURA, MD; p 65.

2. "Hygiene of Children and Youth in Czechoslovakia, 1958-1961," Frantisek JANDA of the Faculty of Medical hygiene, KU [Karlova universita; Charles University] (Lekarska fakulta hygienicka KU), Prague; pp 66-71. [English summary]

3. "Meeting of the Commission on the Hygiene of Children and Youth," Docent Frantisek JANDA, MD, DrSc, of the Institute of Hygiene (Ustav hygieny), Prague; p 71. /

4. "Development of Children Under Different Conditions of Living," Vladislav KAPALIN, of the Institute of Hygiene, Prague; pp 72-83. [English summary]

5. "Harmonious Development of Children Up to Three Years of Age," Miroslav PROKOPEC, of the Institute of Hygiene, Prague; pp 84-94. [English summary]

6. "Analysis of the Body Length and Weight in Children of the Preschool Age," I. HEMEO and V. GAZOVA, of the Institute of Hygiene, Bratislava; pp 95-102. [English summary]

7. "Study of the Manipulation Functions of the Hand in Children in Kindergartens," O. AROCHOVA of the Institute of Hygiene, Bratislava; pp 103-106. [English summary]

8. "The Choice of Toys With Regard to the Age and Sex of Children of the Preschool Age," J. KOCAREKOVA of the Institute of Hygiene, Prague; pp 107-112. [English summary]

9. "The Growth Values in Children of School Age From Two Selected Areas of Slovakia," V. LIPACVA of the Institute of Hygiene, Bratislava; pp 113-121. [English summary]

10. "Growth Dynamics in the Hand of Young People," Vaclav BENES of the Institute of Hygiene, Prague; pp 122-126.

11. "Relation Between the Employment Milieu and the Dynamics of Physical Development in Working Youth and Students," J. VIKOVA and O. NOVOTNA of OUNZ [Okresni ustav narodni-

— 1/4 —

HECKO, I.; GAZOVA, V.

Analysis of body length and weight in children of the preschool age. Cesk. hyg. 7 no.2/3:95-102 '62.

1. Ustav hygieny, Bratislava.
(BODY HEIGHT in inf & child) (BODY WEIGHT in inf & child)

KHAZANOV, A.I. (Moskva, Novopeschanaya, d. 3, kv. 49); GAZOVA, Z.A. (Moskva, Sushchevskiy val, d. 22, kv. 17)

Primary cancer of the liver. Vop. onk. 5 no.1:74-79 '59. (MIRA 12:3)

1. Iz Glavnogo voyennogo gospitalya imeni N.N. Burdenko.
(LIVER NEOPLASMS, case reports,
primary cancer (Rus))

KHAZANOV, A.I., kand.med.nauk, podpolkovnik meditsinskoy sluzhby; GAZOVA, Z.A.

Experience with gastroscopy in gastric ulcer. Voen.-med.zhur. no.8: 74-76 Ag '59. (MIRA 12:12)
(PEPTIC ULCER, diagnosis)
(GASTROSCOPY)

GAZOVSKAYA, N. I., DRYAGINA, I. V.

Importance of summer shading of citrus trees in Crimea. Dokl. Ak. Sel'khoz., 17, No 7, 1952.

GAZPARYAN, A.M., professor (Leningrad); PUTEL', A.Ya., professor (Moskva)

"Renal calculi" by V.I.Vorobtsov. Reviewed by A.M.Gasparian, A.IA. Putel'. Urologiia no.4:86-88 O-D '55. (MLRA 9:12)
(CALCULI, URINARY) (VOROBTSOV, V.I.)

GAZSE, M.N.

Dependence of the properties of low-alloy chromium-nickel steel on the chromium-content. Trudy Inst.met. no.10:188-193 '62.
(MIRA 15:8)

(Chromium-nickel steel—Testing)

GÁZSI, Jozsef

Who defended the airspace of the Hungarian Soviet Republic.
Repules 15 no.3:4 Mr '62.

L 45067-65 HU/0021/64/000/006/0351/0354

ACCESSION NR: AP5014278

AUTHOR: Csomor, S. (Chemer, Sh.) (Doctor); Nagy, J. (Nadi, I.); Gazso, J. (Gazho, Y.) (Doctor); Varga, J. (Varga, Y.)(Doctor)

TITLE: Changes in the resistance of erythrocytes and thrombocytes to ultrasound during radiation treatment of women with cancer

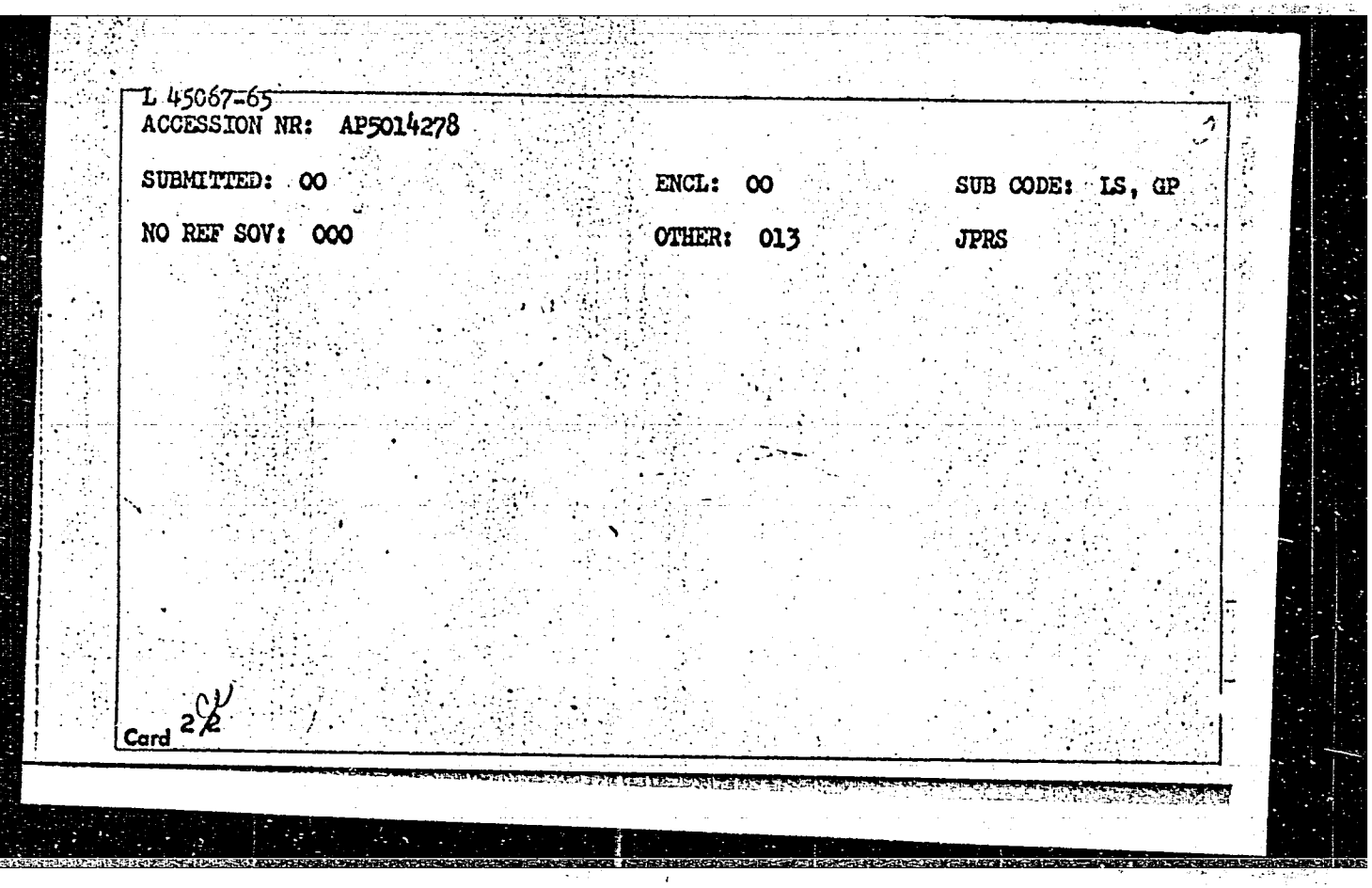
SOURCE: Magyar radiologia, no. 6, 1964, 351-354

TOPIC TAGS: radiology, ultrasonic vibration

ABSTRACT: (Authors' English summary modified) During the radiation treatment of women suffering from carcinoma, the ultrasound resistance of erythrocytes remained unchanged that of thrombocytes, however, decreased. This finding is in agreement with the observation that changes in the blood coagulation factors during irradiation therapy correspond to thrombocytopenia in the majority of cases. Orig. art. has 1 table.

ASSOCIATION: Budapesti Orvostudomanyi Egyetem I. sz. Noi Klinikajanak es Orvosfizikai Intezetenek (Gynecological Clinic, Institute of Medical Physics, Medical University of Budapest)

Card 1/2



L 45067-65
ACCESSION NR: AP5014278

SUBMITTED: 00 ENCL: 00 SUB CODE: LS, GP

NO REF SOV: 000 OTHER: 013 JPRS

Card 2/2

GAZSO, Laszlo; ROSTAS, Laszlo; SZUHAI, Geza

Wall panel structure of the Grinding Mills at Mad. Magy ep ipar 12 no.2:70-76 '63.

GAZSO, Laszlo, statikus; SZABO, Janos, epitesz

The Nagyerdo swimming pool in Debrecen. Magy ep ipar 14 no.3: 149-153 '65.

1. Debrecen Designing Enterprise of the Ministry of Construction, Debrecen.

TORO, I.; FALYI, I.; CSAJG,I.; GA[illegible], I.

Microcinematographic studies of the epithelial cells of the thymus. Acta morph. Acad. sci. Hung. 13 no.1:51-[illegible] '63

1. Department of Histology and Embryology (Director: Prof. I. Toro), University Medical School, Budapest, and Morphological Department (Head: Prof. I. Toro), Institute of Experimental Medicine, Hungarian Academy of Sciences, Budapest (Director: Prof. I. Rusznyak).

ACC NR: AP6027961 SOURCE CODE: HU/0017/66/000/003/0161/0166

AUTHOR: Csatkai, Denes; Gazso, Miklos

ORG: none

TITLE: Principles of the calculation of gravimetric plumb-line deflections

SOURCE: Geodezia es kartografia, no. 3, 1966, 161-166

TOPIC TAGS: gravimetry, gravimetric analysis

ABSTRACT: A review was made of the basic factors and calculations involved in the computation of gravimetric plumb-line deflections. The problems of gravitation reduction and the effects of internal zones were discussed and a simplified technique was described for the calculation of the internal zones. The solution of the inner circle with the aid of the gradient technique and with the circumferential technique was also described. [JPRS: 36,844]

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 009 / OTH REF: 002

Card 1/1 UDC: 528.241

0917 1676

YAZDOVSKIY, V. I. and GAZULEV, S. A.

"Some Medical and Biological Problems of Manned Space Flight"

report presented at the 13th Intl. Astronautical Federation Congress (IAF)
Varna, Bulgaria, 23-29 Sep 1962

GAZSO, Laszlo

Standardization of cooling towers with natural ventilation.
Magy ep ipar 13 no.12:739-742 '64.

H/016/62/000/011/001/001
D249/D308

AUTHORS: Yazdovskiy, V.I. and Gazulov, S.A.

TITLE: Some medical and biological problems of manned space flights

PERIODICAL: Fizikai Szemle, no. 11, 1962, 349-351

TEXT: The present work is a lecture given at the XIIIth International Astronautical Conference at Várná. Perspectives of research can be classified into a) the effect of space conditions on living organisms, b) the provision of living conditions during the flight, and c) study of the conditions and forms of extraterrestrial life. Point a) may be subdivided into: 1) aspects connected with the flight dynamics, e.g. acceleration, vibration, noise and weightlessness, 2) aspects arising from the properties of interplanetary space (radiation, compositions of different gas media, lack of pressure, intensity of electromagnetic field), 3) psycho-physicological and hygenic aspects of the conditions inside the space ship. Attention is concentrated on the effects of prolonged weightlessness,

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Some medical and biological ... H/016/62/000/011/001/001
D249/D308

cosmic radiation and on the reaction of the human organism to nervous and mental stress. A brief survey is given of some medical observations made during the flights of Soviet spacemen.

ASSOCIATION: Szovjetunió Orvostudományi Akadémiája (Academy of Medical Sciences, USSR)

Card 2/2

GAZUREK, R.

Cost of reinforcing surfaces by a tar and water plaster. p. 120, V. 10, no. 5 May 1955, DROGOWNICTWO

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955 Uncl.

GAZUREK, R.

GAZUREK, R. The twilight of stone road foundations. p. 197. Vol. 11, no. 8, Aug. 1956. DROGOWNICTWO. Warszawa, Poland.

SOURCE: East European Accessions List (EEAL), Vol. 6, No. 4--April 1957

GAZUREK, R.

Asphalt-water mortar. P 55

DROGOWNICTWO. (Wydawnictwa Komunikacyjne) Warszawa, Poland. Vol. 14, no. 3, March. 1959

Monthly List of East European Accessions (EEAI) LC. Vol. 8, no. 7, July 1959

Uncl.

GAZUREK, Rudolf, mgr., inż.

Tar and water filler. Drogownictwo 17 no.3:58-61 '62.

DIMOV, G.; GAZURKOV, I.

Cardiac echinococcosis. Khirurgiia, Sofia 8 no.1:81-82 1955.

(HEART DISEASE,
echinococcosis)
(ECHINOCOCCOSIS,
heart)

GAZVINOV, A.G.

Economic efficiency of a field and centralized drying and cleaning of raw cotton. Za tekh. prog. 3 no.7:47-48 Jl '63. (MIRA 16:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomiki sel'skogo khozyaystva (VNIIESKh).

GAZYAN, G.

Introducing modern methods of well testing in test areas.
Neft. khoz. 38 no.11:56-58 N '60. (MIRA 14:4)
(Oil wells—Testing)

GAZYAN, G.

Give greater attention to the development of instruments for hydrodynamic investigations of reservoirs and wells. Neft. khoz. 41 no.6:58-61 Je '63. (MIRA 17:6)

GAZYAN, G.

First Siberian Conference on Testing Exploratory Wells in Oil and Gas Prospecting. Geol. nefti i i gaza 5 no. 1:62-63 '61. (MIRA 14:1)

(Petroleum geology) (Gas, Natural--Geology)

GAZYAN, G.S., kandidat tekhnicheskikh nauk; ESKIN, M.G.; KORSHUNOV, Ye.S.; OSTROVSKIY, Yu.I.; ROMANOVA, Ye.I.

Mechanization of bit feeding. Trudy TSIMTnefti no.1:3-22 '54.
(MLRA 10:9)
(Oil well drilling--Equipment and supplies)

GAZYAN, G.S.

Bases of an efficient method of tapping and testing layers in the process of drilling test holes. Geol. nefti i gaza 6 no.1: 48-52 Ja '62. (MIRA 15:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut.

(Boring)

GAZYAN, G.S.; PALIY, P.A.

Current designs of testers. Neft. khoz. 39 no.12:24-29 D '61.
(MIRA 14:12)

(Oil wells—Testing)

GAZYAN, G.S.

Method of the determination and estimation of oil and gas potentials in boring. Sov. geol. 5 no.7:148-151 Jl '62. (MIRA 15:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut.
(Petroleum geology)
(Gas, Natural—Geology)

GAZYAN, G.S.

State of the development of new designs for samplers for deep prospecting holes. Razved. i okh. nedr 28 no.9:41-45 S '62. (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut.
(Prospecting--Equipment and supplies)

GAZYMOV, M.M.

Surgical treatment of goiter. Kaz.med. zhur. no.5:48-49 S-O'63
(MIRA 16:12)

1. Glavnyy vrach Leninogorskoy bol'nitsy.

GAZYZOV, M.S.

BUYANOV, Yu.D., inzh.; GAZYZOV, M.S., inzh.; DAVIDENKO, Yu.K., inzh.; DIONIS'YEV, A.I., inzh.; DEMIN, A.M., inzh.; KARPINSKIY, N.Ye., inzh.; RAZMYSLOV, Yu.S., kand.tekhn.nauk; SKRIPKA, L.V., kand. tekhn.nauk; TULOVSKIY, M.V., inzh.; YAMSHCHIKOV, S.M., inzh.; OKHRIMENKO, V.A., red.izd-va; BERLOV, A.P., tekhn.red.

[Problems in open-cut mining of coal] Voprosy otkrytoi razrabotki ugol'nykh mestorozhdenii. Pod obshchei red. IU.S.Razmyslova. Moskva, Ugletekhizdat, 1957. 338 p. (MIRA 11:4)
(Strip mining) (Coal mines and mining)

MAYEVSKIY, Ivan Vasil'yevich, doktor ekonom.nauk; KAN, Aleksandr Viktorovich; GAZYAN, Georgiy Sameonovich; ALEKHIN, Leonid Grigor'yevich; KUZNETSOV, P.V., red.; PONOMAREVA, A.A., tekhn.red.

[Mechanization and automation form the basis for increasing labor productivity] Mekhanizatsiia i avtomatizatsiia - osnova rosta proizvoditel'nosti truda. Pod obshchei red. I.V.Maevskogo. Moskva, Gosplanizdat, 1960. 200 p. (MIRA 14:3)
(Industrial equipment--Technological innovations)
(Automation)

30147
S/608/61/000/000/002/007
B139/B102

9.2100 (1001, 1159, 1365, 1137)

AUTHORS: Gazyev, Sh. M., Aripov, G.

TITLE: Results of gamma irradiation of radiotechnical parts

SOURCE: Nekotoriye voprosy prikladnoy fiziki, 1961, 49 - 50

TEXT: The fact that the mechanical and electrical properties of materials and parts used in radio engineering can be modified by gamma irradiation has been utilized by the authors to study the behavior of radio sets in radiation fields and to develop radiation-resistant sets. At the Institut yadernoy fiziki AN UzSSR (Institute of Nuclear Physics AS Uzbekskaya SSSR) a series of resistors (types ВС-0,25 (VS-0.25), ВС-0,5 (VS-0.5), ВС-1,0 (VS-1.0), ВС-2 (VS-2), МЛТ-0,5 (MLT-0.5), МЛТ-1,0 (MLT-1.0), МЛТ-2 (MLT-2), УЛМ-0,12 (ULM-0.12)) were irradiated with gamma rays, one low-ohmic and one high-ohmic resistor of the same type in each experiment. The parameters were measured before and after gamma irradiation in a pit at a dose rate of 1·0.1·60 g, 650 rep/sec before and after gamma irradiation. The initial integral dose amounting to $100 \cdot 10^6$ rep was increased to $1100 \cdot 10^6$ rep in intervals of $100 \cdot 10^6$ rep. Measurements showed that the conductivity of all

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KOSIC, Vojislav, sanitetski pukovnik, dr.; ARSENIJEVIC, Milan, sanitetski pukovnik, prof. dr.; KANDIC, Branko, sanitetski pukovnik, doc. dr.; GBESA. Branko, sanitetski potpukovnik, doc. dr.

Acute carbon monoxide poisoning in the mine Banovici. Vojnosanit pregl. 21 no.3:157-164 Mr '64.

1. Klinika za unutrasnje bolesti i Klinika za dusevne i zivcane bolesti, Vojnomedicinska akademija u Beogradu.

G'BEV, B.

BULGARIA / Microbiology. General Microbiology. F-1

Abs Jour : Ref Zhur - Biol., No 20, 1958, No. 90767

Author : Toshkov, As.; G'bev, B.
Inst : Division of Biological and Medical Sciences, Academy of Sciences, Bulgaria
Title : Antibacterial Action of a Decoction of Dog Rose Galls on Whooping Cough Bacteria

Orig Pub : Izv. Otd. biol. i med. nauki. B'lg. AN Sor. eksporim. biol. i med., 1957, No 1, 101-109 (Bulg.; res. Russ. Ger.)

Abstract : Decoction of dog rose galls showed a bacteriostatic action on whooping cough and dysentery bacilli, staphylococci, and streptococci. For treatment of patients with whooping cough a "parodin" preparation was tried, the composition of which included a 60% sugar syrup of a decoction of dog rose galls, fruits of the pimpernel, anise, and Christs-Thorn; in the same way decoctions of mistletoe and other

Card 1/2

BULGARIA / Microbiology. Sanitary Microbiology. Sanit- F
ary Microbiology of the Air.

Abs Jour: Ref Zhur-Biol., No 2, 1959, 5558.

Author : G"bev, Ye.
Inst : Bulgarian AS. Section of Biology and Medical Science.
Title : Some Studies in Air Disinfection.

Orig Pub: Izv. Otd. biol. i med. n. B"lg. AN. Ser. eksperim. biol. i med. 1957, No 3, 129-138.

Abstract: No abstract.

Card 1/1

GBINERIYA, K.I.; MARGVELASHVILI, O.V.

Method for determining the size of the auxiliary tank for automobile air springs. Soob.AN Gruz.SSR 24 no.5:571-578 My '60. (MIRA 13:8)

1. Institut mashinovedeniya AN GruzSSR, Tbilisi. Predstavleno akademikom R.R.Dvali.
(Automobiles—Springs)

GBOZDUKHIN, S. YE., Cand Agric Sci -- (diss) "Yield of perennial grasses in relation to the methods of sowing and the composition of grass mixtures in the conditions of the Udmurt ASSR) Moscow, 1957, 14 pp (Moscow Agricultural Academy im K. Z. Timiryazev), 110 copies (KL, 36-57, 106)

G BOZDYAK, R. I.

OBOZDYAK, R.I.

Effect of aerobic sporeforming bacteria, isolated from wheat and barley rhizospheres, on seed germination and growth of the plants. Mikrobiol.zhur. 19 no.4:40-44 '57. (MIRA 11:1)

1. Kiivs'kogo derzhavnogo universitetu im. T.G.Shevchenka, kafedra mikrobiologii ta antibiotikiv.
(RHIZOSPHERE MICROBIOLOGY)
(WHEAT) (BARLEY)

GBURCIK, P.

Determining nondivergent heights. p. 1

YUGOSLAVIA. HIDROMETEOROLOSKA SLUZBA. VESNIK. Beograd, Yugoslavia.
Vol. 7, no. 1/2, Jan./June 1958

Monthly List of East European Accession (EEAI) LC, Vol. 8, no. 6
June 1959
Uncl.

JANOWSKI, T. M.; GBURCZYK, J.; PUSTELNIK, J. (Krakow)

Preliminary studies on the influence of microclimate factors upon the fertility of bulls. Rocz nauk roln wet 70 no.1/4:366-367 '60. (EEAI 10:9)

(Bulls) (Fertility)

GBUREK, Alina

Influence of Priscol on intrabulbar pressure level. Klin. oczna 32 no.3:245-248 '62.

1. Z Kliniki Okulistycznej Slaskiej AM w Zabrzu Kierownik: prof. dr med. M. Madroszkiewicz.
(TOLAZOLINE) (INTRAOCULAR PRESSURE)

GBUREK, Zbigniew; WOLANSKI, Adam; KUBIK, Wiktor

Neurological complications in rheumatoid arthritis (rheumatoid neuropathy). Reumatologia (Warsz.) 1 no.3-4:305-311 '63.

1. Z I Kliniki Chorob Wewnetrznych Sl. Akademii Medycznej w Katowicach (Kierownik: prof. dr J. Japa) i z Oddzialu Neurologicznego PSK 4 w Katowicach (Kierownik: dr K. Golonka).

POLAND

WOLAŃSKI, Adam; [illegible] ZBIGNIEW and SZACHOWSKI, Jedrzej; First Clinic of Internal Diseases (I Klinika Chorób Wewnetrznych) Sl AM (Slaska Akademia Medyczna -- Silesian Medical School) in Katowice; Director: Prof Dr Josef JAPA.

"The Treatment of Diabetes Insipidus and Polydipsia with Chlor- and Hydrochlorthiazide. Report on 4 Cases"

Warsaw, Polski Tygodnik Lekarski, Vol XVIII, No 7, 11 Feb 1963, pp255-259

Abstract: (Authors' English summary modified) The report deals with 3 cases of diabetes insipidus and 1 case of polydipsia treated with the thiaside preparates. Thirst diminished and electrolyte excretion increased during the treatment. Weight loss was found on the first day. Decrease of diuresis appeared on the 2nd or 3rd day of treatment. Decrease of glomerular filtration was observed at the same time. In 2 cases of diabetes insipidus the diuretic effect of "Oridrex"

1/2

FOLTA, Marian; GEUREK, Zbigniew

Primary aseptic necrosis of the femoral head as a cause of degenerative changes of the hip joint. Reumatologia (Warsz.) 3 no.3:263-267 '65.

1. Z Kliniki Ortopedycznej Slaskiej AM w Bytomiu (Kierownik: prof. dr. med. G. Weisflog) i z I Kliniki Chorob Wewnetrznych Slaskiej AM w Katowicach (Kierownik: prof. dr. med. J. Japa).

BATKO, Bronislaw; GARLIK, Zbigniew

An atypical case of psoriatic arthropathy. Wiad. lek. 18 no.17: 1417-1421 1 S '65.

1. Z Oddzialu Chorob Wewnetrznych Szpitala Wojskowego w Gliwicach (Ordynator: dr. med. B. Batko).

BATKO, Bronislaw; GBUREK, Zbigniew

Diagnostic difficulties in a case of acute diffuse necrosis of the liver without jaundice. Wiad. lek. 18 no.5:429-434 1 Mr '65

1. Z Oddzialu Chorob Wewnetrznych Szpitala Wojskowego w Gliwicach (Ordynator: dr. med. B. Batko).

GBURKOWA, Alina; POJDA, Stefan Marian

Clinical observations on the use of demecarium bromide in glaucoma. Pharmacologic properties of demecarium and physostigmine in experiments. Klin. oczna 35 no.2:207-212 '65.

1. Z Kliniki Chorob Oczu (Kierownik: prof. dr. med. M. Madroszkiewicz) i z Zakladu Farmakologii Akademii Medycznej w Katowicach (Kierownik: doc. dr. med. T. Chrusciel).

L 20255-63 EWT(1)/BDS/ES(v) AFFTC/ASD/AFMDC/ESD-3/APGC Pe-4/Po-4 GW

ACCESSION NR: AT3007031 S/2560/63/000/017/0066/0081

AUTHOR: Imyanitov, I. M.; Gdalevich, G. D.; Shvarts, Ya. M.

TITLE: Measurement of electrostatic field intensity at the surface of geophysical rockets moving in upper atmospheric layers

SOURCE: AN SSSR. Iskusst. sputniki Zemli, no. 17, 1963, 66-81

TOPIC TAGS: electrostatic field intensity, field intensity, electrostatic field, geophysical rocket, rocket, ionospheric electrostatic field, ionospheric current

ABSTRACT: A discussion is presented of methods used to measure electrostatic field intensity at the rocket surface during flights of nonstabilized geophysical rockets on 14 July 1959, 15 June 1960, and 24 June 1960 and during flight of a stabilized geophysical rocket on 15 November 1961. The basic measuring circuit is shown in Fig. 1 of the Enclosure, diagrams of the sensing elements, in Figs. 2 and 3. Disk-shaped measuring plate 1 (Fig. 2) was situated at the rocket surface and responded to the local space

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ACCESSION NR: AT3007031

charge in the vicinity of the rocket. Rotating and fixed slotted disks 2 and 3 were located above the sensing disk; the rotating disk was spun at 900 cps to give a chopped output signal in load resistor R proportional to the field intensity. (A cross section of the entire pickup assembly is included, showing mounting details of the disks and the drive motor; fabrication details are also given.) The distance between the measuring and rotating disks was 1.5 mm and between the measuring and fixed disks 5 mm. The effective area of the sensing disk was about 24 cm^2. The drive motor also drove a generator whose output served as the reference voltage for synchronous detection; during calibration, the rotating disk could be adjusted with respect to the rotor to give optimum signal-to-noise operation in the synchronous detector. The most interesting results were those obtained on 15 November 1961 with the stabilized rocket, which attained the highest altitude (430 km) and had the smallest measurement errors. The full scale of its field sensing equipment was ± 6 v x cm^{-1}, and the sensitivity threshold was 0.06 v x cm^{-1}. Preliminary tests had shown that the error of the device did not exceed 5% or 0.3 v x cm^{-1}.

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In addition to the field sensors, a current pickup was installed to register charges not intercepted by the sensors. The current sensitivity threshold was 10^{-9} amp x cm^{-2}, which was not actually reached during the 15 November flight. The pickups were placed at diametrically opposed pofnts on the cylindrical part of the rocket, pickup 1 facing north and pickup 2 facing south at approximately one-third the distance from the rocket nose. Solar rays fell on pickup 2 at an angle of 4°, while pickup 1 remained in the shade. Measurements showed that the rocket was negatively charged throughout the recorded period. At all altitudes, except for a small sector between 100 and 120 km, field intensity at the rocket surface remained almost constant at 1.5 to 1.6 v x cm^{-1}; within the same altitude range, the depth of the space charge varied within 1.2—5 cm at a temperature of 1000K, and within 1.7—7 cm at a temperature of 2000K. Results of measurements made for the nonstabilized rockets confirm those obtained for the stabilized rocket and suggest the existence of a significant electrostatic field in the regions studied. "The authors thank K. I. Gringaus for discussing the results of the investigation

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L 20255-63

ACCESSION NR: AT3007031 3

and V. G. Boroduline, V. I. Zhdanov, and V. A. Kraynev for their assistance in developing the equipment." Orig. art. has: 8 figures, 1 table, and 12 formulas.

ASSOCIATION: none

SUBMITTED: 24Aug62 DATE ACQ: 110ct63 ENCL: 02

SUB CODE: GE, AS NO REF SOV: 010 OTHER: 000

Card 4/6

GDALEVICH, G. D.

AID Nr. 967-9 15 May

ELECTROSTATIC FIELD INTENSITY OF THE SURFACE OF A GEOPHYSICAL ROCKET (USSR)

Imyanitov, I. M., G. D. Gdalevich, and Ya. M. Shvarts. IN: Akademiya nauk SSSR. Doklady, v. 148, no. 6, 1963, 1306-1308. S/020/63/148/006/013/023

The electrostatic field intensity near the surface of a geophysical rocket launched 15 November 1961 was measured by means of an electrostatic fluxmeter. The equipment measurement range was ± 6 v/cm. The readings of two symmetrically placed fluxmeter pickups, although differing from each other, showed that field intensity undergoes relatively slight variations with altitude. The intensity value measured by one of the pickups varied within the range of 0.5 to 1 v/cm, and that of the other from 1.8 to 2.5 v/cm. The second pickup was illuminated by the sun at an angle of 4° throughout the flight, while the first remained in the shade. The electric field intensity corresponding to the charge on the rocket itself had an average value of 1.5 v/cm. After taking into account measurement errors and inaccuracies in the determination of the real value of

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AID Nr. 967-9 15 May

ELECTROSTATIC FIELD INTENSITY [Cont'd] S/020/63/148/006/013/023

intensity, the average value of the electrostatic field produced by the charge of the rocket was found to be < 2 but > 1 v/cm, i.e., the rocket had a negative charge. Measurements of electron concentration, together with data on field intensity, made it possible to determine that the potential produced by the rocket's own charge amounted to several volts. At an altitude of 200 to 300 km, it was determined that the electric field was < 3.6 but > 1.6 v/cm according to the second pickup and < 1.2 but > 0.1 v/cm according to the first pickup. It was concluded that during the experiment an electric field intensity of the order of 10^{-3} v/cm existed in the ionosphere. [DW]

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41910

S/560/62/000/013/006/009
I046/I242

9.9120

AUTHORS: Gringauz, K.I. and Gdalevich, G.L.

TITLE: Analysis of the results of simultaneous measurements of electron concentration in the ionosphere with the aid of ionospheric stations and rockets

SOURCE: Akademiya nauk SSSR. Iskusstavennyye sputniki Zemli. no. 13. Moscow, 1962, 89-96

TEXT: In the first part, altitude-frequency characteristics are obtained by numerical integration of the basic equation $H_a = \int_0^H \frac{dh}{h}$, making use of the experimental $n_e(h)$-curves recorded on rockets. Here H_a is the "actual" attitude of reflection, H-

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GDALEVICH, G.L.

Measurements of the electrostatic field intensity at the surface of a rocket flying in the ionosphere. Dokl. AN SSSR 146 no.5:1064-1067 O '62. (MIRA 15:10)

1. Predstavleno akademikom A.L.Mintsem.
(Atmosphere, Upper—Rocket observation)

GOROZHANKIN, B. N.; SHUTTE, N. M.; GDALEVICH, G. L.

"Some Experiments on the Satellite COSMOS-2"

Report presented at the 14th International Astronautics Congress, Paris, France, 25-Sept- 1 Oct 1963.

ACCESSION NR: AP4016061 P/0048/63/000/004/0002/0004

AUTHOR: Gringauz, K. I.; Gorozhankin, B. N.; Shutte, N. M.; Gdalewicz, G. L.

TITLE: Some experiments carried out aboard the satellite "Cosmos-2"

SOURCE: Astronautyka, no. 4, 1963, 2-4

TOPIC TAGS: ionospheric satellite measurement, solar ultraviolet radiation measurement, photoelectric current measurement, ionospheric research, positive ion measurement, photoelectron emitter, artificial earth satellite instrumentation, retarding potential

ABSTRACT: The article gives additional results of experiments carried out aboard "Cosmos-2" (launched 6 April 1962), involving measurements of the density of positive ions surrounding the satellite. The results of these measurements provide additional support for the hypothesis that the structure of the ionosphere has undergone considerable change since the period of maximum solar activity, probably owing to the cooling of the upper atmosphere, which caused a drop of the heavy constituents in the ionosphere. In addition, the article describes another experiment, designed to investigate the electric currents induced in emitters of photoelectrons by solar ultraviolet radiation. An analysis of the photoelectric currents

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ACCESSION NR: AP4016061

of the emitters at various altitudes and retarding potentials permitted an evaluation of the absorption of solar ultraviolet radiation in the ionospere. Orig. art. has: 7 figures.

ASSOCIATION: Akademia Nauk ZSRR(Academy of Sciences SSSR)

SUBMITTED: 00 DATE ACQ: 10Feb64 ENCL: 00

SUB CODE: PH, GE NO REF SOV: 002 OTHER: 005

Card 2/2

L 17808-63 EWT(1)/EWG(k)/BDS/ES(s)-2/ES(v) AFFTC/ASD/AFMDC/ESD-3/APGC/IJP(C)/SSD Pz-4/Pt-4/Pe-4/Po-4 AT/GW/K

ACCESSION NR: AT3007029 S/2560/63/000/017/0042/0058

AUTHOR: Gdalevich, G. L.

89
82

TITLE: Measurement of electrostatic field intensity on a rocket surface during its flight through the ionosphere

SOURCE: AN SSSR. Iskusst. sputniki Zemli, no. 17, 1963, 42-58

TOPIC TAGS: rocket, ionosphere, ionospheric electric field, surface charge, ionospheric space charge, space charge, fluxmeter, electrostatic fluxmeter, rocket surface charge

ABSTRACT: The problem of measuring the surface electrostatic charge acquired by a rocket passing through the ionosphere is discussed. An apparatus is described which was used for this purpose on three geophysical rocket flights, and the resulting data are analyzed. The theoretical model assumes that a body rising through the ionosphere accumulates a net charge since the velocity of electrons encountered is several orders of magnitude greater than positive ion velocity, and that a corresponding space charge is created for some distance out from the body. It is suggested that the

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charge should be fairly uniform over the surface of a stabilized (nonrotating) rocket and should be relatively constant in magnitude in comparison to the large variations in both concentration and temperature of the charge particles through which it moves. The apparatus used for sensing the surface electrostatic field consisted of two fluxmeters placed on opposite sides of the rocket. The d-c output voltage of each was chopped, amplified, and fed to a synchronous detector and (via cathode followers) to telemetry channels. The fluxmeter was formed from an active disk and a shielding disc placed 3 mm apart and made of nickel-plated brass. Each disk was slotted into six equal sections with the shield disk being rotated at 9000 rpm by a synchronous motor. The same motor drove a 6-pole magneto which generated the reference voltage for the detector. The circuitry also included an automatic sensitivity switch which was activated by variations in the sensed field strength. Overall output was 0.1 v for a measured field intensity of 0.2 v/cm. Vacuum tubes were used throughout and all units were environmentally tested under vibration, acceleration, and temperature extremes prior to flight. With the above apparatus on board,

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ACCESSION NR: AT3007029

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rocket flights were made in September 1957, February 1958, and August 1958. In the August 1958 flight the rocket was roll stabilized and its field intensity was recorded up to a distance of 450 km as shown in Fig. 1 of the Enclosure. Analysis of recordings from all three flights shows that the rockets acquired a generally negative charge estimated at 5×10^{-5} to 10^{-3} CGSE/cm^2 and leads to the following conclusion: After allowing for measurement error and possible charge effects from solar radiation, ionospheric winds, and rocket motion, the only model that satisfies all observed data is that of an external electrostatic field. This c could appear in the form of either ionospheric currents or a local space charge arising around the rocket, which causes the charging phenomena. A schematic of the charge measuring circuitry is included. "The author expresses his gratitude for the supervision of K. I. Gringauz and I. M. Imyanitov and his thanks to V. I. Zhdanov and V. A. Krayney for help in preparing the apparatus." Orig. art. has: 7 figures and 10 formulas.

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L 10276-63 BDS/EWT(l)/FS(v)/EEC-2/ES(v)/ES(t)-2—AFFTC/AFMDC/
APGC/ASD/ESD-3/SSD--Pc-4/Pg-4/Pi-4/Pk-4/Pl-4/Pc-4/Pg-4—GW/BC/AFR/AST
ACCESSION NR: AP3000990 S/0109/63/008/006/0942/0949

100

AUTHOR: Gdalevich, G. L.; Gringauz, K. I.; Rudakov, V. A.; Ry*tov, S. M.

TITLE: Effect of the ionosphere on the position finding of space rockets [Report of the Thirteenth International Astronautical Congress held in Varna September 1962]

SOURCE: Radiotekhnika i elektronika, v. 8, no. 6, 1963, 942-949

TOPIC TAGS: space rocket, effect of ionosphere

ABSTRACT: Some ideas are set forth about calculating the errors caused by the ionosphere in determining coordinates and speed of space rockets by radio means. Assuming a geometrical-optics approximation and measurements at frequencies over 5 x 10 sup 7 cps, formulas are derived for the ionosphere-caused errors in determining range, elevation, and speed of rockets. The rocket is assumed to be in outer space, and errors due to the troposphere and interplanetary plasma are neglected. Approximation of the real altitude distribution of electron concentrations is discussed for purposes of evaluating the above errors. Western and Soviet data on electron concentrations are compared. Orig. art. has: 9 formulas and 6 figures.

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IMYANITOV, I.M.; GDALEVICH, G.L.; SHVARTS, Ya.M.

Measurement of the electrostatic field strength on the surface of geophysical rockets. Dokl. AN SSSR 148 no.6:1306-1308 F '63. (MIRA 16:3)

1. Predstavleno akademikom A.L.Mintsem.
(Electrostatics) (Rockets in meteorology)

L 13675-63 EWT(l)/EWT(m)/FCC(w)/FS(v)/EDS/... /ASD/
AFFTC/AFMDC/ESD-3/AFGC/SSD Pr-4/Pg-4/Pi-4/Pl-4/Po-4/Pq-4/Pe-4
ACCESSION NR: AP3003851 S/0020/63/151/003/0560/0563 105 101

AUTHOR: Gringauz, K. I.; Gorozhankin, B. N.; Shyutte, N. M.; Gdalevich, G. L.

TITLE: Altitude distribution of charged particles in the ionosphere and the transfer region between oxygen and helium ion layers from ion trap data taken by the Cosmos II satellite

SOURCE: AN SSSR. Doklady*, v. 151, no. 3, 1963, 560-563

TOPIC TAGS: Cosmos satellite, Cosmos II, ionosphere, ionospheric oxygen, ionospheric helium, ionized layer, ion transfer region, ion density, ion concentration, mass spectroscope, mass spectrograph

ABSTRACT: The ion traps used in the flight of Cosmos II, which was launched in April, 1962, are described briefly, and some conclusions are drawn from data produced by them about the relative densities of He^+ and O^+ ions in the upper ionosphere. One trap was of the planar type, containing three electrodes and having its input grid at satellite skin potential; eight of these were located evenly-spaced over the satellite surface. The second type was a spherical trap, which was fixed to a boom 65 cm long in order to position it outside the plasma sheath

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ACCESSION NR: AP3003851

of the satellite. In the latter type the input grid was swept with a dual-polarity sawtooth voltage of 2-sec duration. Both trap types used suppressor grids next to the collectors to minimize photo- and secondary-emission effects. The collector current registered in the traps could be stored and later interrogated at rates up to 12 times a sec when the satellite was in range of Soviet tracking stations. Sample graphs for several orbits are given which show the variation in total positive ion density as a function of satellite altitude based on data from the planar traps. The graphs verify the general decrease in positive ion density with altitude found by earlier U.S. and Soviet satellites, but reveal a significantly higher dropoff rate above the altitude of maximum ion density. This is confirmed by data from the spherical traps, in which the slope of the volt-ampere characteristic was used in conjunction with mass spectrographs to relate ion concentration to respective mass number. By assuming that only O^+ and He^+ need be considered, the total ion concentration at any orbital altitude was thus divided between these two, showing O^+ dominating at lower levels ($\approx$ 520 km) and giving way to He^+ at increased altitudes ($\approx$ 620 km). The sharp dropoff in density as well as the appearance of dominant He^+ at lower altitudes than heretofore noted suggest that the ion transfer region was significantly lower at the time of the Kosmos flight than in the 1958-1960 period,

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ACCESSION NR: AP3003851

apparently as a result of reduced solar activity in 1962. "The authors express their gratitude to G. N. Zlotin and I. D. Dmitriev for their substantial aid in processing the results of the experiments." The article was presented by Academician A. L. Mints on 28 Feb. 1963. Orig. art. has: 2 figures and 4 formulas.

ASSOCIATION: none

SUBMITTED: 14Feb62 DATE ACQ: 15Aug63 ENCL: 00

SUB CODE: AS NO REF SOV: 007 OTHER: 006

Card 3/3

IMYANITOV, I.M.; GDALEVICH, G.L.; SHVARTS, Ya.M.

Measurement of the electrostatic field strength near the surface of geophysical rockets moving in the upper atmosphere. Isk.sput.-Zem. no.17:66-81 '63. (MIRA 16:7)
(Electric fields--Measurement)
(Atmosphere--Rocket observations)

L 1540-66 FSS-2/EWT(1)/EWT(m)/FS(v)-3/EPF(c)/FCC/EWA(h) RPL TT/WW/GS/GW
ACCESSION NR: AT5023577 UR/0000/65/000/000/0151/0167

AUTHOR: Afonin, V. V.; Breus, T. K.; Gdalevich, G. L.; Gorozhankin, B. N.; Rybchinskiy, R. Ye.; Gringauz, K. I.

TITLE: Kosmos-2 ionosphere experiments

SOURCE: Vsesoyuznaya konferentsiya po fizike kosmicheskogo prostranstva. Moscow, 1965. Issledovaniya kosmicheskogo prostranstva (Space research); trudy konferentsii. Moscow, Izd-vo Nauka, 1965, 151-167

TOPIC TAGS: artificial earth satellite, ionosphere, ionosphere composition, ionospheric plasma, ion temperature, electron temperature, ion trap, honeycomb trap, metal photoemission, F region, Kosmos 2

ABSTRACT: The Kosmos-2 artificial earth satellite, launched on 6 April 1962 into an orbit from 49°N to 49°S (perigee ~212 km and apogee ~1546 km), was intended for the structural study of the ionosphere and the attendant characteristic processes therein. In addition to a direct telemetering system, information storage equipment was installed on board the satellite. The principal tasks of the satellite were: 1) to remeasure the ion concentration and the chemical composition of the ionospheric region from 500 to 1000 km (first done in 1958 by the third Soviet Sputnik) during

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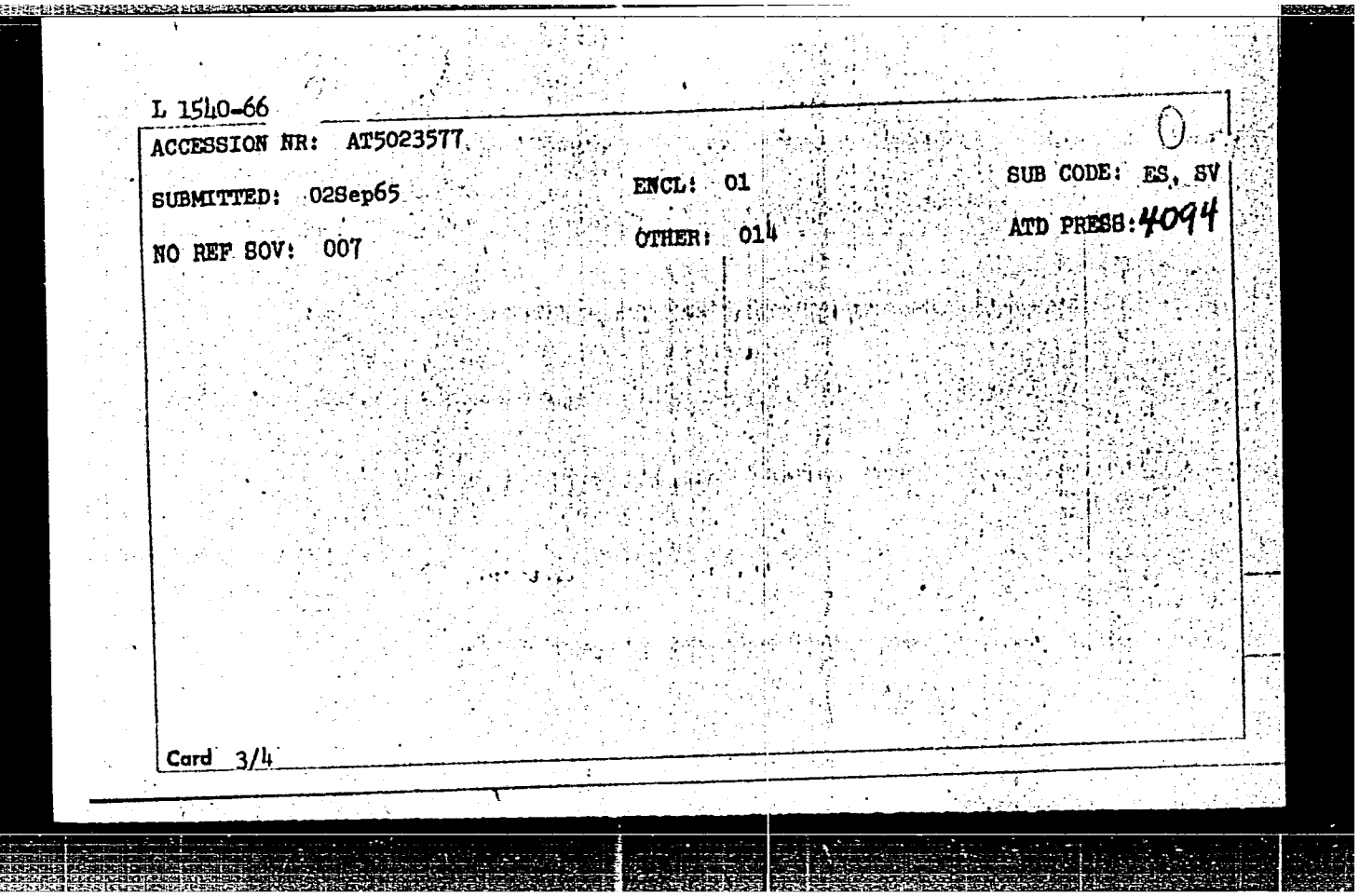
ACCESSION NR: AT5023577

a period of decreased solar activity; 2) to investigate the ionospheric regions above 1000 km under nocturnal and twilight conditions; 3) to measure the positive ion temperature by means of a new method using honeycomb-type ion traps with a very narrow directivity pattern; 4) to sound both the ion and electron components of the ionospheric plasma in order to measure the electron temperature and concentration (from ~212 to 600 km) by means of cylindrical Langmuir probes; and 5) to use a system of plane ion-traps for determining the satellite attitude with respect to its velocity vector. A honeycomb-type ion trap is shown in Fig. 1 of Enclosure. It consists of three electrodes (collector, antiphotoelectron grid for suppressing photocurrent on collector surface, and an external honeycomb cap, connected to the satellite). The maximum current in such a trap is achieved when the velocity vector of the incident ion beam is normal to the collector. In addition to the above experiments, measurements of the variation in photoemission from metals (due to the short-wave solar radiation in the frequency region near the ionization maximum of the F-region) were made to determine the total ultraviolet absorption in the F-region. It is stated that the experimental results from the Kosmos-2 mission will be helpful in preparing new ionospheric studies. Orig. art. has: 1 table, 6 formulas, and 15 figures. [YK]

ASSOCIATION: none



L 1540-66

ACCESSION NR: AT5023577

SUBMITTED: 02Sep65 ENCL: 01 SUB CODE: ES, SV

NO REF SOV: 007 OTHER: 014 ATD PRESS: 4094

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L 1540-66

ENCLOSURE: 01

ACCESSION NR: AT5023577

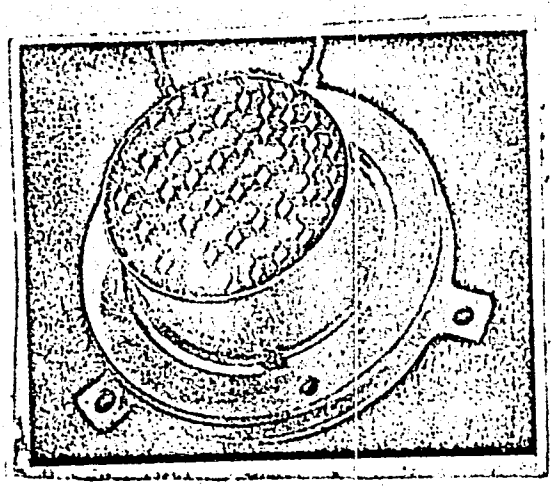

Fig. 1. Honeycomb-type ion trap

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L 1274-66 EWA(h)/EWT(m)/FCC GW/GS

ACCESSION NR: AT5023581 UR/0000/65/000/000/0189/0192

AUTHOR: Breus, T. K.; Gdalevich, G. L. 61 8+1

TITLE: Electron and ion temperatures in the ionosphere

SOURCE: Vsesoyuznaya konferentsiya po fizike kosmicheskogo prostranstva. Moscow, 1965. Issledovaniya kosmicheskogo prostranstva (Space research); trudy konferentsii. Moscow, Izd-vo Nauka, 1965, 189-192

TOPIC TAGS: ion temperature, electron temperature, ionosphere, artificial earth satellite, satellite data analysis

ABSTRACT: The authors analyze data from direct measurements of T_e and T_i made by "Explorer-8," "Explorer-17," "Allouette-1," "Ariel-1," "Kosmos-1" and by American and Japanese rockets. The results of the analysis show daily variations in the electron temperature up to ~1200 km as a function of latitude and altitude. Since the ion temperature was measured in only three experiments, one of which has not yet been published, there was no basis for conclusive results. A maximum in the electron temperature is usually observed in the morning hours immediately after sunrise. The T_e/T_i ratio is considerable in the maximum region of the F layer and may reach

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ACCESSION NR: AT5023581

values of more than 2 in the middle latitudes (where most of the experiments were conducted). These results are confirmed by incoherent scattering data. There is a considerable gradient with altitude in temperatures up to 400 km. Measurements above 400 km are contradictory for various reasons, so that no conclusions can be made about the high-altitude behavior of the temperature. Experimental data on incoherent scattering and measurements made by "Ariel-1" and "Explorer-17" indicate that the electron temperature increases with an increase in latitude. Orig. art. has: 2 figures. [14]

ASSOCIATION: none

SUBMITTED: 02Sep65 ENCL: 00 SUB CODE: ES, NP

NO REF SOV: 004 OTHER: 015 ATD PRESS: 4102

Card 2/2

L 3431-66 EWT(d)/EWP(v)/T/EWP(k)/EWP(h)/EWP(1)/ETC(m) WW/GS

ACCESSION NR: AT5023597 UR/0000/65/000/000/0271/0274

52

B+1

AUTHORS: Gdalevich, G. L.; Imyanitov, I. M.

TITLE: Electrical fields in the ionosphere according to data from direct measurements taken by geophysical rockets

SOURCE: Vsesoyuznaya konferentsiya po fizike kosmicheskogo prostranstva. Moscow, 1965. Issledovaniya kosmicheskogo prostranstva (Space research); trudy konferentsii. Moscow, Izd-vo Nauka, 1965, 271-274

TOPIC TAGS: ionosphere, electric field, sounding rocket, geophysic instrument, fluxmeter

ABSTRACT: Experiments have been carried out on geophysical rockets to measure directly the electric fields occurring in the lower layers of the earth's atmosphere. Many prominent effects in these regions depend strongly on the magnitude of the stationary electric fields there, but previous estimates of their intensities have been available only on the basis of indirect data to which must be applied theories as yet not fully worked out. The measurements were made with two fluxmeters (G. L. Gdalevich, I. M. Imyanitov, and Ya. M. Shvarts. Kosmicheskiye issledovaniya, 3, No. 1, 102, 1965) located opposite one another

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